

Ohio Agricultural Experiment Station.

CIRCULAR 80

Forage crop work conducted in cooperation with the
Bureau of Plant Industry, U. S. Department of Agriculture.

COOPERATIVE ALFALFA WORK FOR 1908.

C. G. Williams, Agronomist and L. H. Goddard, Experimentalist.

In the Cooperative Alfalfa work for 1908 the Experiment Station proposes to consider the following problems:

Date of Seeding.	Kind of Nurse Crop.
Cultural Preparation of Seed Bed.	Inoculation.
Fertilizers and Lime.	Varieties.

By virtue of an arrangement between the Experiment Station and the U. S. D. A. Bureau of Plant Industry, seed for any of the above experiments will be furnished by the latter to such Ohio farmers as are able and willing to give them proper attention. Some other material will be furnished by the Station, the amount depending upon the legislative appropriations for the year.

While the effort will be made to confine each test to the consideration of but one of the above problems, yet, where conditions are favorable, combinations of two or more of them will be worked out to suit particular cases. The size of plots also will be varied to suit the conditions. In sections of the state where the growing of alfalfa is as yet a questionable farm practice the plots had best be made small, about one by two rods, and the tests more numerous. In the older alfalfa sections arrangements will be made with persons of experience to supply them with material for plots from one tenth to one acre in size. It is hoped that the Station will be able to visit persons who wish to make such large plot tests to make detailed plans for the work; but in the absence of funds with which to do this, plans will be worked out by correspondence, as well as possible.

Date of Seeding. On well drained land which is well supplied with lime, humus and plant food and reasonably free of weeds, early seeding has the advantage of securing a crop of hay from the nurse crop. Other sections not so well favored might well consider seeding at a later date in order to give more time for cultivation of seed

bed, to kill the weeds and liberate plant food. In this test it would be well to put in small plots at a number of different times during the season.

Kind of Nurse Crop. Barley has proven a very successful nurse crop for alfalfa yet good stands have been secured with oats and even with wheat that had been sown the previous fall.

Cultural Preparation of Seed Bed. Most of the good alfalfa fields of the state have been secured by seeding upon newly plowed and prepared seed beds. Many good stands, however, have been seeded after other crops, such as potatoes, corn, oats, etc. Many persons, who are interested in the crop, will find it profitable to make small plot tests on each kind of seed bed available.

Inoculation. Inoculation is no "cure all" for all the ills of alfalfa, as some seem to suppose, yet there are probably some sections of the state in which it will hasten the securing of a good stand. In this test the use of the U. S. D. A. cultures will be compared with that of soil, in small plot tests. Arrangements have also been made whereby the cultures alone will be supplied to a limited number who wish to try them on large plots or fields.

Fertilizers and Lime. Many soils in the state are normally deficient in lime and many others have been farmed until they are now in that condition. Of all farm crops alfalfa probably is most sensitive to such a deficiency, so that success with it on such soils can not be expected until lime has been added. Likewise many soils will probably grow better alfalfa if they receive a dressing of bone meal or other fertilizers. Ordinarily this test would best be conducted with small plots but arrangements may be made for large plots in some cases.

Varieties. The U. S. D. A. Bureau of Plant Industry wishes us to determine the adaptability to Ohio soil of Sand Lucerne and Provence seed as compared with regular Montana seed. Tests along this line will usually be confined to the sections in which alfalfa is recognized as a safe crop, and in general large plots only will be used.

County Farm Work. In all counties in which either the Children's Home or Infirmary is located on a soil that is typical of any large area of the county, it would be of great advantage to that county if arrangements were made to take up large plot tests of a number of the above problems on one or both of these farms. In this event the Station will endeavor to assist in holding a field meeting at which the people of the county will be invited to study the test and to discuss general farm problems.

All persons interested in the above work may secure further information regarding same by filling out the attached application blank and forwarding to

EXPERIMENTALIST, O. A. E. S. Wooster, Ohio

APPLICATION

Co-operative Alfalfa Work—1908.

Gentlemen:—

I have read your circular regarding cooperative alfalfa work and would like further information regarding the following tests: 1. Date of Seeding. 2. Kind of Nurse Crop 3. Cultural Preparation of Seed Bed. 4. Inoculation. 5. Fertilizers and Lime. 6. Varieties. (*Underscore those you select.*)

I own.....acres of land; rentacres, and manageacres

Regarding the land upon which I am thinking of making this test I answer the following questions:

How long has it been under cultivation?..... ..Has it been well handled or hard run since that time?..... ..What was the original timber?..... ..

What is the character of the soil?..... ..How deep on the average?..... ..What is the character of the subsoil?..... ..

Is it first bottom, second bottom or upland?

Does it slope to the north, east, south or west and how steep, or is it a ridge top?..... ..

What drainage has it?..... ..

How far is it down to gravel if any, and what is the character of same?.

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How far is it to rock, if known, and what is the character of same?..... ..

How near to and in what direction from you is there a limestone outcrop?
. Have you ever applied lime to
this land? When, what kind and how much per acre?
. With what success have you ever tried alfalfa
before?
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Does clover do well on this land? What is the
approximate average yield of each of the crops grown on this land in the past
five years?
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What crop was on the ground the past year?

(In case you wish to take up large plot work please fill out the following:)

I shall be pleased to meet your representative at
Railway or traction station
which is miles of where I live, or at
direction
which is miles of where I live, or at
direction
.

I shall wish about days notice and am connected with
. telephone exchange at
Citizens or Bell

My farm is located in Township County

My express office is Freight office

Signed P. O

Date of mailing 1908.

Mail to Experimentalist, O. A. E. S., Wooster, Ohio.